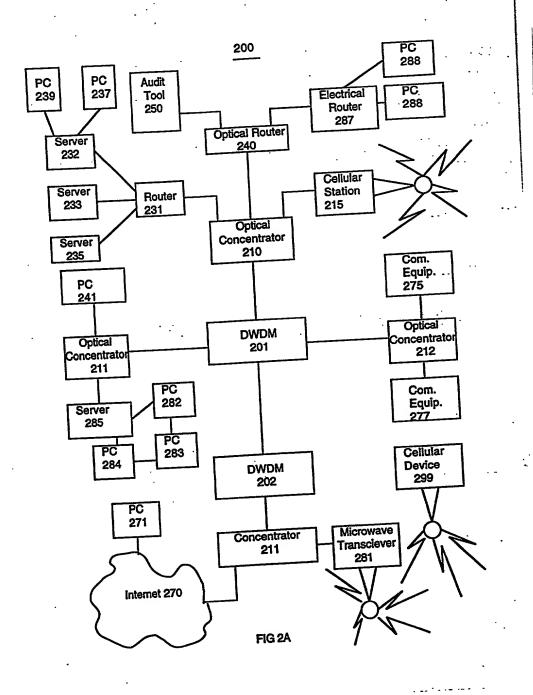


FIG. 1



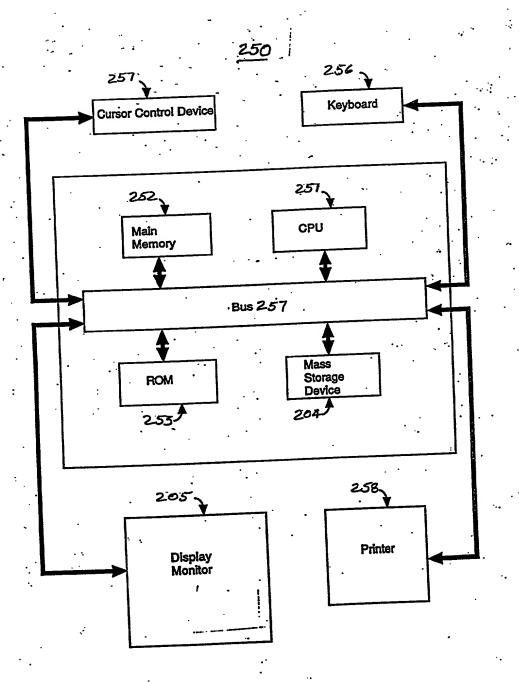


FIG. 2B

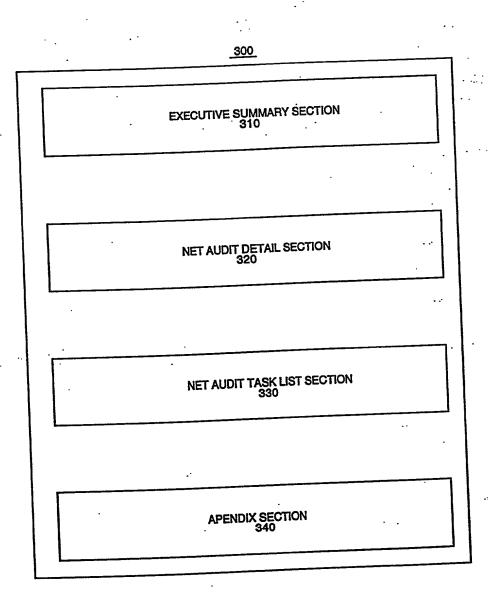


FIG 3

INTRODUCTION TO NETWORK DEVICE AUDIT 410

NETWORK AUDIT DATA COLLECTION SUMMARY 420

NETWORK AUDIT DATA COLLECTION GRAPH 430

NETWORK AUDIT NREP SUMMARY 440

FIG 4A

## INTRODUCTION TO: Network Optical Concentrator 15454 Audit.

Optical 15454 network audit provides a convienent identification of the network optical concentrators included in a network and assessesment of those network optical concentrators. Network optical concentrators.

This report assesses the health of these devices according to four network management categories (configuration management, fault management, performance management and capacity management) in a convenient format.

FIG AB

NETWORK AUDIT DATA CO	LLECTION SUMMARY TABLE
Collection Period.	
Collection Start Time	
Collection Stop Time	
Unreachable Nodes	

FIG 4C

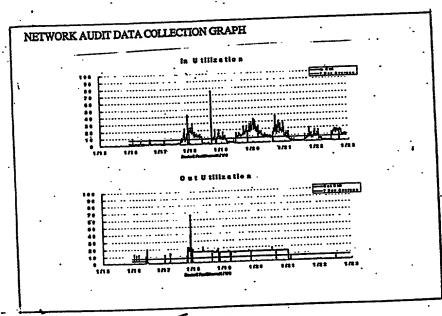


Fig 4D

Status Indicator	Status Identification	Points Assinge
Warning	Warning indications appear in data tables highlig yellow with bolded font. Warning indications m possible problematic areas and should be investigated.	hted in
Critical	Critical indications apear in data tables highlight with bolded font. Critical indications mark cond that require immediate attention.	ed in red 10
NET AUDIT HE	ALTH: 78%  Audit Health % = 100 - ((Total NREPs/Total Pos	sible NREPs) x100)
NREP Summary	Toble	
C	ritical NREPs: 35.789	
W T	arning NREPs: 58,897 otoal NREPs: .94,686	**
·		
NREPs Ratio by	Category Graph	
Notes:	•	·
NODE CORREL	ATIONTABLE	<del></del>
	الله الله الله الله الله الله الله الله	2000
\$ 0.00 mg	الله الله الله الله الله الله الله الله	
	الله الله الله الله الله الله الله الله	
	الله الله الله الله الله الله الله الله	
	الله الله الله الله الله الله الله الله	

FIG 4E

<del></del>	Configuration Management Section 510	
System	511	
Media	512	
Protocol	513	
Node	514	

	Fault	Management Section 520	
System	521	· · · · · · · · · · · · · · · · · · ·	
Media	522		
Protocol	523		
Node	524		

	Performance Mana	agement Section 530	
System	531		
Media	532		
Protocol	533		
Node	534		

	Capacity Management	Section 540
System	541	
Media	542	
Protocol	543	
Node	544	

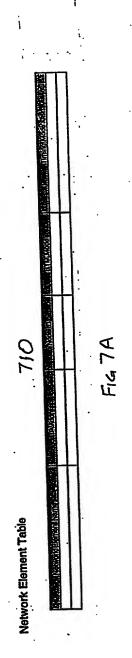
Fig 5

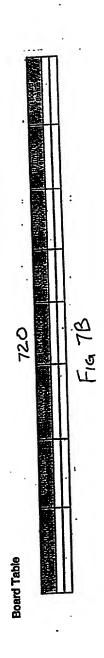
009

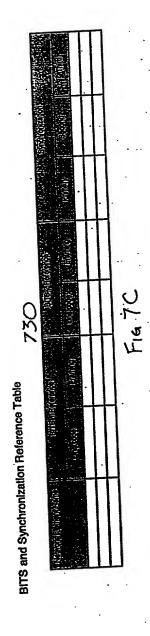
SUBEMPACT AREA:

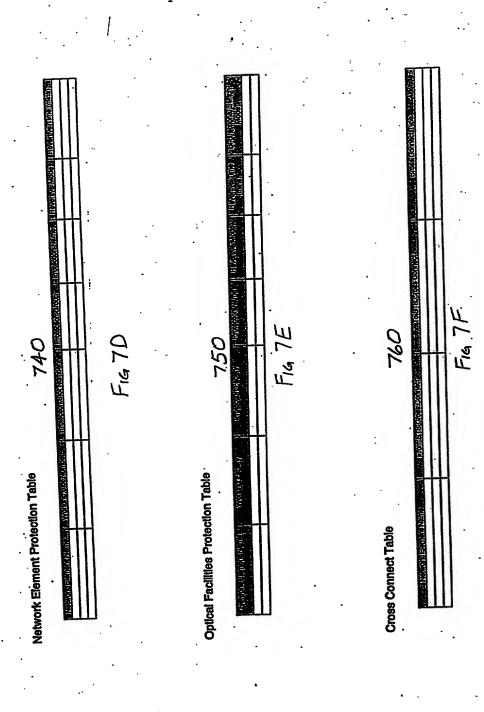
Mode.			Model:	je;		System NAEPS.	rs.
			III. Carrier	Capacity Planning 188	200	Configuration	2
Faut		The second secon				TALL MORDS	
H٠		Total NREPs	ř	Total NREPs		IOUR MAGE	
TORR NATURAL				Commonent Name	Value	Component Name	Velue
Component Name	. Value	Component Name	A. C.				
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•						•	
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			-				•
·							
		-					•
				-			

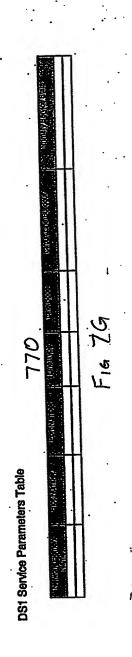
Fig. 6



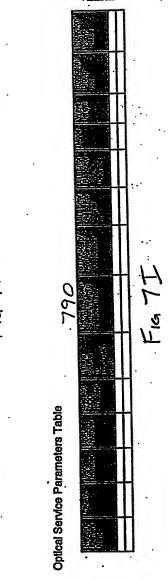


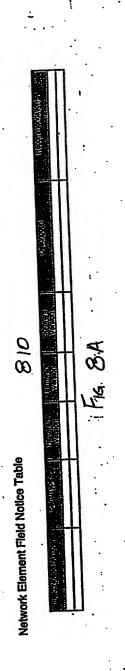


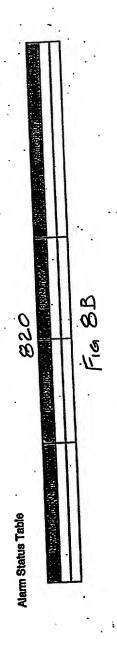












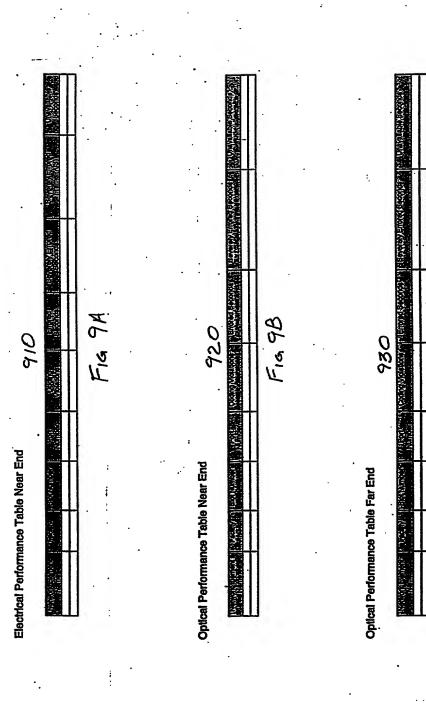


Fig 9C

FIG 10A 1010 Network Element Capacity Table

Not Audit Task List Table

1020

Western Work and Market M

## 1030

## Appendix D - Device Unreachable Table

Hostinamarour	AND DESCRIPTIONS OF THE PARTY O	MOSSELLING HOLLOWS SERVICES AND SERVICES
Flouter I	. PASS	router
Router j	PASS	C2900

The Failure Type is one of the following:

Duolicated Fall

upucasso\_ran

Device is in the list more than once and data was unsuccessfully collected.

Duplicated\_Pass

Device is in the list more than once and data was auccessfully collected.

PAIL.
Device either had unknown this or passwords, or could not be mached due to public throthers.

Not Used

Price was in the initial audit request but was not in the device list at the time of the collection.

Switch

Device is a 25xx switch, not a router, NATixt will be corrected in the biture to properly classify the 25xx switches, so that they do not access in the Poster Stability Net Asset

Incomplete Command Set

During the data collection, one or more commends were not retrieved from the router, most thely because the connection between the NATIRI and the router failed.

Fig 10C

103 -		**
Stot Company   Stot	<b>8.</b> - <b>188</b>	Serial Nambor   CER UA, INI
***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  **	**************************************	

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		88888888888888	
	THE STANFORM		. FIG 11B.
PRINCPHOCHEFACEALLIZE ISBN.	H 133 CORES 1800 OF THE PROPERTY OF THE PROPER		
• PRITRY.	800M 1251 M 1251 M 120M 120M 120M 120M 120M 120M 120M 120		

Optical Performance Table Far End

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Comments	CER_MA_PM_O P Index 15H		the number med 5 for a med; 5 for a med; 5 for a med 5 10 cm cm and 5 10 cm an
du.		₽	P = 25 Sec. 25
(Sivelial) (Fuolgi) Sicologi	CER JAN PILO	-	the number of the composite of the compo
1000 1000 1000 1000 1000 1000 1000 100	CERCIAL M.Co. Index 15H	1	if the number encodes of the a 15 min. for a 15 min. or encodes 804 for a 1 day interval, fag. RED.
(Octilie)	CERCUALPIAL OP Index 12H	-	OCS Interfees at the number occasion 1312 of a 16 mhr. Interval or a case of
harakuniak Kating Harand Katakak Viotellan Katanda Katanda Manaka	CER_MA_PM_OP Index 1H		
1,00000 1,000000	CERCIA PIN	9	
This collisy	CER_MA_INV Index 2A	87-30 0	
Wetermise permittent		NOOK 4	

FG 10

COMMAND	RETRIEVED INFORMATION
RTRV-INV::SLOT-xxx:yyy;	Slot number, Card Type, Part Number, Hardware Version, Firmware Version, and Serial Number.
<u></u>	Internet Protocol (IP) Address, Synchronous
RTRV-NE:::;	Transfer Mode, Node Identification (ID), and
	Transfer Mode, Node Identification (15), and
·	Timing Mode.
RTRV-EOPT::SLOT-xxx:yyy;	Slot Number, Card Type, and Card Status.
RTRV-BITS::BITS-xxx:yyy;	BITS Reference Number, Line Coding, and Frame
	Format
RTRV_SYNC::SYNC-NE:xxx:yyy;	Synchronization Sources such a First Primary
KIKY_DII(CDII(CI\Dama,)))	Complemention Souther Second Sylichronization
•	Comme and a Third Symcronization Source.
RTRV-ALM-ALL:::yyy;	Alarms and associated Slot Numbers.
	Time of Day
RTRV-TOD:::yyy;	Cariffein and Near End and Far End performance
RTRV-PM-OCvv:: FAC-xxx-	1 to a summission and reception Severive Efforce
ALL:yyy::,,,,zzz,,;	Emmine Second (SEES), Line Coding Violation
	I COURT & Time Empred Second (ESL), LIES SEVELLY
	Errored Second (SESL), Path Unavailable Second
	LATACEN Desh Coding VIOLATION IL.Y.F.L.FALL
	Errored Second (ESP), and Path Severely Errored
	Second (SESP). Transmission and reception NPJC
	Second (SESP). Haismission and total
	and PPIC information.
RTRV-PM-T1: FAC-xxx-	Facilitiy and Near End performance such as
ALL:yyy::,,,,zzz,,:	transmission and reception Severly Errored Framing
	Second (SEFS), Line Coding Violation (CVL),
•	Line Errored Second (ESL), Line Severly Errored
	Second (SESL), Line Unavailable Second (UASL)
	and Line Failure Count (FCL). Transmission and
	reception NPIC and PPIC information.
RTRV-OCvv:: FAC-xxx-	Facility, Section DCC Enabled, Timing Source for
ALL:yyy::,,,,zzz,,;	TCC/TMG Card, Span Switch Wait to Restore
	Justfications, Singal Failure Bit Error Ratio, Signl
	Degrade Bit Error Ratio Threshold, Facilitiy state,
	Protection Group Role, and Protection Group
:	Charte
RTRV-T3:CERENT:FAC-xxx-	Facility, Line Type, Line Coding, Line Buildout,
y:zzz:::; or RTRV-T1:TID:FAC-vv	and Primary Service State.
	•
RTRV-FFP-EQPT::SLOT-vv:yyy;	Working Slot Number, Protection Slot Number,
KIKY-FFF-EQF1.SLO1-W.JJJ.	Protection Group, Protection name, Revenue
	135-3- and Departive Time
7000 V 700 00 - 740	Detrieves Informatio on working Slot Number,
RTRV-FFP-OCvv::FAC-xx-yy:zz	Les and a Clas Minerhee Projection Litude
	Protection name, Revertive Mode, Revertive Time
	i i Didimetional Station Mode.
RTRV-CRS-STS3C::STS-vv-xx-	Kenieves intornation on From Cas, 20 of the
יאיאאי:	CRS type.

Fig IID

		Described Descri
CG3 interfaces	Optical Performance Table Near and Far end	for CGS assessments  five number exceeds 1312 for a 15 min. Interval or exceeds 13,120 for a 1- larg interval are bottled red  for CGI2 interfaces  for CGI2 interfaces  for the service of the first a 15 min. Interval or exceeds 53,250 for a 1-
13,120 for a 1-day interval OC12 interfaces If the number exceeds S315 for a 15 srin. interval or exceeds S3250 for a 1-day	Violetions	sy hannel are botted red For COS intertaces to the number consects 21,250 for a 15 min, interval or exceeds 212,500 for a 1-day hannel are botted red
interval OCAS interfaces If the number exceeds 21,260 for a 15 min. interval or exceeds 212,600 for a 1-day interval		
OSI intertaces If the number exceeds 13,240 for a 15 min.	Electrical Performance Near End table	ForDS1 Interfaces If the number exceeds 13,340 for a 15 min. Interval or exceeds 133,400 for a 1-day interval are bailed red .
interval or exceeds 133,400 for a 1-day interval	Coding Violetions	For US-Strandaces If the number exceeds 387 for a 15 min, interval or exceeds 3865 for a 1-day interval are boiled red For EC-1 handaces For EC-1 handaces
DS-Sinterfaces If the number exceeds 387 for a 15 min, interval		If the number exceeds 1312 for a 15 mm; such as the charge are boiled and .
or exceeds 3865 for a 1- day interval EC-1 interfaces		Por DSDG4-6 interface If the number exceeds 397 for a 15 min, interval or exceeds 3865 for a 1-day interval are bolded red
If the number exceeds 1312 for a 15 min. interval or exceeds 13,120 for a 1-day interval		
DS3XVA-6 interiace  If the number exceeds 367 for a 15 min, interval or exceeds 3865 for a 1-		
Gay interval  If the number exceeds 87  for a 15 min, interval or exceeds 854 for a 1 day interval	Optical Performance	E the number exceeds 67 for a 15 min, interval or exceeds 864 for a 1 day interval are bolded red
DS1 interfaces If the number exceeds 65 for a 15 min, interval or	Performance Near End table	For DS1 bearings.  If the pumber exceeds 65 for a 15 min. Interval or exceeds 648 for a 1-day.  If the pumber exceeds 65 for a 15 min. Interval or exceeds 648 for a 1-day.
exceeds 648 for a 1-de interval DS-3 interfaces If the number exceeds 2	210.00	For DS3 interfaces  For DS3 interfaces  Fig. DS3 interfaces  Fig. DS3 interfaces  Fig. DS3 interfaces  Fig. DS3 interfaces  For ES1 interfaces  Liber number exceeds 87 for a 15 min. Interval or exceeds 864 for a 1-dry  Liber number exceeds 87 for a 15 min. Interval or exceeds 864 for a 1-dry
tor a 15 min. Internal of	V	2. the number exceeds of the historial residence of the historial residence of the historial residence of the number exceeds 25 for a 15 min, interval or exceeds 250 for a 1-dec
interval EC-1 interfaces If the number exceeds to for a 15 pits, interval	× .1	Internal are booked red
exceeds 854 for a 1-6 interval DS3XX4-6 interface If the counter exceeds	7	
for a 15 min, interval exceeds 250 for a 1-c interval	or   .	

FIGILE

		·
Ne Rail	School Se	Description of the Address of the Ad
DS1 interfaces If the number exceeds 10	Severely Errored Frame (AIS)	For DS1 interfaces If the number exceeds 10 for a 15 min. Interval or exceeds 10 for a 1-day
for a 15 trin. Interval or exceeds 10 for a 1-day enterval		Interval are bolided and . For DS-3 interfaces If the sumber exceeds 10 for a 15 min, interval or exceeds 10 for a 1-day
DS-3 intertaces If the number exceeds 10		Interval are bolded red For EC-1 Interfaces
for a 15 min. interval or a exceeds 10 for a 5-day interval.		If the number exceeds 10 for a 15 min. Interval or exceeds 10 for a 1-day interval are bolded red.
EC-1 interfaces If the number exceeds 10		For DSSXA46 Interface  # The number exceeds 10 for a 15 min. Interval or exceeds 10 for a 1-day interval are boilded and
for a 15 min. Interval or exceeds 10 for a 1-day interval		
DS3XM-6 interface If the number exceeds to		
for a 15 min, interval or exceeds 10 for a 1-day interval.		
If the number exceeds 1 for a 15 min, interval or exceeds 4 for a 1 day	Optical Performance	If the number exceeds 1 for a 15 min, interval or exceeds 4 for a 1 day interval are holded red
interval .	Table Near and Far and Severely Entered	
Market	Seconds	
DS1 interfaces	Section . Performence	ForDS) Interaces If the number exceeds 10 for a 15 min, interval or exceeds 100 for a 1-day interval or exceeds 100 for a 1-day
exceeds 100 for a 1-day interval DS-3 interfaces	Severely Entered Seconds	For DS-3 interfaces If the number accesseds 4 for a 15 min, interval or exceeds 40 for a di-day interval and bottled red
If the mumber exceeds 4		For EC-1 interfaces
for a 15 min, interval or exceeds 40 for a 1-day	7.5	If the number exceeds 2 for a 15 min. Interval or exceeds 4 for a 1-day interval are bolded rad.
interval EC-1 interfaces		For DSXXI-6 Interface
If the number exceeds 1 for a 15 min, interest or		If the number exceeds 4 for a 15 min, interval or exceeds 40 for a 1-day interval are bolded red
succeds 4 for a 1-day		
DS3XXI-6 interface	٠ ,	
If the number exceeds 4 for a 15 min. Interval or		· •
exceeds 40 for a 1-day interval		
	Sict Number	Claplays Sict Number
DS1 transaces If the number exceeds 3	Electrical Performance	For OSI interlaces If the number exceeds 3 for a 15 min. Intervel or exceeds 10 for a 1-day
for a 15 min, interval or exceeds 10 for a 1-day	Near End table Unavellable	interest are bolded and
interval	Seconds	If the number exceeds 3 for a 15 min. Interval or exceeds 10 for a 1-day
DS-3 interfaces If the number exceeds 5	• • •	Internal are boided red EC-1 Interfaces
for a 15 min, internal or exceeds 10 for a 1-day		If the number exceeds 3 for a 15 min. Interval or exceeds 10 for a 1-day interval are bolded red
interval EC-1 interfaces		For DS3204-6 Interface If the number exceeds 10 for a 15 min. Interval or exceeds 10 for a 1-day
If the number exceeds 3 for at 15 min. Interval or		Internal are bolded red
exceeds 10 for a 1-day interval DS3XA-6 interface		
If the number succeeds 10	!	1
for a 15 min. Interval or exceeds 10 for a 1-day		· .
Interval  If the number exceeds 3	A	If the pumber expects 5 for a 15 min. Interval or exceeds 10 for a 1 day
for a 15 min. Interval or	Optical Performence	Spiring the project and
exceeds 10 for a 1 day Interval	Table Near and Fer and	
	Univellable	•
	Seconds	

Fig 11 F

Elikakon makinkati	Adding boards with CTC 2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Screen each node to determine it heas addedown TCCs are present and treated and the secondary of the seconda
Hardware   Firmware   Software   Software   Waraion   Wa	L	Bill across may be seen on an OC-12 card when the incoming like frequency is less than ME's informal clock. By ME's informal clock by ME's informal clock is a result of synchronization problems in the newbork, or if the node is operating in free mode. Bit errors may be seen when synchronization through a frequency by 4 ppm or more, or when nativorita are configured, to thee rounds.	White performing a software upgrade to specific TICZs or activating software on specific TICZs here processes may full Additional fallure symptoms could hacke unexplained reseats of the TICC.
Varsion K. 197	NJA.		<b>∀</b> ≱
Firmware Version I	YN	. '	
Hardware Version	or prior	600-04756-01 AD 800-04758-01 AD 800-04760-01 AD	serial number of ranges 1550 and 45500 and FAAA220001 through FAAA320AABA
Cerditon.	E1001	OG12 Cards	TCC card
(Floiding Notice)		<b>6</b> 5	

F1a 12

2.24				
TO MAKE	Include?	<b>~</b> ,	7	· ~
	Net Advice	Verify the current value sast and funestigatie why it has changed from default. In some networks, uning its advantageous and values other than default are acceptable.	Verify the current value set and freestgate why it has changed from defeath. In some networks, turning its adventageous and values other than default are acceptable	Verify the current value are and investigate why it has changed from defeats, in some executes, tuning it advantageous and values other them defeats are acceptable
THE PARTY OF THE P	Net Info	BIT EmorRatio ForSignal Fail - the defaut value is 1E-4, it has been defermined that your value is conesting other than the default.  BIT Emor Ratio For Signal Degrade - the default value is 1E-7, it has been defermined that your value is comething other than the default.	Line type — the defeut value for for all DS and EC inductance accept the DSSOAde is Del. The defeut value for the DSSOAde is CB. It has been determined that your value is comething other han the defeut, what for all DS and EC inductances accept the DSSOAde is Ault. The EC inductances accept the DSSOAde is Ault. The EC inductances accept the DSSOAde is failured to EC in the DSSOAde in the fact in the BSSOA. It has been defeated what for the DSSOAde interface is excepting other than the defeat what for DSSOA. It inducts the DSSOAD is defeated white for DSS-1 interfaces the C-1St. The defeat where for EC-1 interfaces the C-1St. The defeat white for EC-1 interfaces is C-2St. The defeat where for EC-1 interfaces is C-2St. The defeat what for EC-1-2 inferfaces is C-2St. The defeat what then the defeature other than the defeature.	Line type – the default while for for all DS and EC hinelines enough the DS3XXA-6 is CM. The EChinelines enough the DS3XXA-6 is CM. The beathul while he cannot have been determined that your vable is something other than the default.  Line 5cxis — the default, while for all DS and EC hierinese enough the DS3XXA-6 is fueltice is SOTS-8. It has been determined that your vable is something other than the default, while for excepting the DS3XXA-6 is fueltice is something other than the default while for Circuit Line Buffdout – the default while for DS3-1 infantese is 0-131. The default vable for the ECI-12 interfaces is 0-255. The default vable for the ECI-12 interfaces is 0-255. It has been determined that your vable is something other than the default.
	Poff Pred	hourly	hourty	bounty.
Ner Audit	MIB applicab (e)			
	Section S	System	System	Media
	Section	Perform ance Cofigur ation Fault	Perform anca Coffgur eston Fault	Perform anno Cofigur ation Fault
	Key Variable (e)			•
	Command	RTRY-OC48::FAC-6-1224;	RTRV-T3:CERENT:FAC-1- 2-123::::	HTRV-71:TID:FAG-2- 1:1223:::::

T. a.